

East Coast branch **field trip** with Aratu Forests Ltd, Gisborne

On 28 May 2025, the East Coast branch of the NZFFA met with Aratu Forests Ltd in Gisborne for an overview of their operation and a field visit to their nearby Te Kopua block. Four Catchment Advisors from the Northern Catchment team of the Hawke's Bay Regional Council (HBRC) were also present.

Bryan McCavana



Dave Grogan addressing visitors on the coastline of Te Kopua Forest

Overview of operation

In their Gisborne office, visitors were shown the extent of the approximately 35,000 ha of forests they own on the East Coast, which extends down into Hawke's Bay, this being a mix of freehold forest land as well as joint ventures. Aratu said their company is providing approximately \$1.5 million directly to the local economy every week. They explained their shareholder arrangement in detail, and then walked us through their challenges, successes and innovations operating on the East Coast, particularly over the last seven years.

Impact of storm and cyclone events

Prior to Cyclone Gabrielle, which arrived on 13 February 2023, issues with forest management and forest harvesting were already known to the region. In March 2012, a large storm mobilised woody debris in the Maraetaha Stream, causing issues south of Gisborne. In 2018, the Queen's Birthday storm affected forests and mobilised woody debris in a major way on the East Coast, causing significant damage downstream, as well as to land and infrastructure in the forests.

Roading infrastructure damage and the failure of landing sites within forests contributed to the mobilisation of sediment and woody debris during the storm of 2018. Afterwards Aratu, like most forest companies in the region, adopted new engineering techniques and harvesting practices to prevent infrastructure failure during heavy rainfall events. This included increased benching beneath roads and landing sites, improved water table and culvert management, and bringing woody debris back from the edges of landing sites.

Less than five years after the 2018 event, Cyclone Gabrielle caused damage to approximately 2,500 ha of their estate, and most damage was correlated strongly with aspect and slope. Other observations included that 30-40 year-old trees were prone to toppling, and significant failure occurred in second rotation forests between 8-12 years old. It is still unknown why this was the case, but most suspect the decay of tree roots from the previous tree crop.

The observation of the failure and toppling of large 30-40 year-old pine trees during the storm events serves as a reminder of why regulators need to work with the forest industry to tackle these problems. Leaving the trees *in situ* and walking away is not a solution on the East Coast.

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Minimal infrastructure damage occurred where new roading infrastructure techniques had been adopted since 2018, a phenomenon witnessed throughout the East Coast forest sector. This has been a huge success, because although the new civil engineering level solutions have significantly increased roading costs for Aratu, roading repair costs after Cyclone Gabrielle dropped majorly compared with 2018 (a smaller storm as well).

Also, access within forests where harvesting was occurring remained mostly intact, meaning harvesting could continue soon after the cyclone once public road access was restored. The newly adopted engineering practices proved valuable for economic resilience as well as environmental protection.

Current issues

Most of the current issues now lie with mid-slope failures, gullies and steep erodible land in close proximity to waterways. Aratu agreed that changing species or retiring the high-risk erosion-prone land would be part of the solution, but all in the room on the day agreed (after seeing photos and evidence of the source of the challenges on their estate) that this is much easier said than done. Where soil has been lost to bedrock, revegetation can be difficult. Even where some level of soil or regolith is intact, trying to plant this can be difficult and dangerous due to slope and instability, and the soil medium present is often not conducive to good plant survival.

Further complicating the option to retire these areas arises due to Emissions Trading Scheme (ETS) liabilities that can result from changing species and/or land use. The value of pre-1990 liabilities can be in the order of \$50,000-\$60,000/ha if specific forest definitions are not achieved. This figure does not include the cost of establishing natives or managing native reversion. Talks are ongoing in this space, and Aratu are investigating how a biodiversity credit market could work to support these objectives.

Post-Gabrielle, Gisborne District Council funded the development of a GIS layer with Manaaki Whenua, to help identify the likely source of sediment and woody

debris across Tairāwhiti, where shallow landslide susceptibility has high connectivity to waterways (see <https://gizzy.maps.arcgis.com/apps/instant/basic/index.html?appid=382035d48a14e2e8d863a19f53746c1>). Although the layer has not been thoroughly calibrated, it provides an indication for land managers to consider where shallow soil slips could occur and result in externalities.

Revegetation

To succeed in revegetating these areas long term, the use of and the experimentation with a range of colonising plants, soil conservation trees and potentially certain exotic forest species is required, alongside a programme of managed pest plant and animals to encourage success. Hawke's Bay Regional Council staff present said they are working with forest companies in the Hawke's Bay and Gisborne region in this space, and offering funding assistance for erosion prevention techniques.



Visitors listening to information about the restoration of a Pa site

We left the office and drove to Te Kopua Forest to see where large setbacks from the road and nearby stream were now planted with natives on the steeper areas, and with redwoods on the lesser inclines. Aratu are exploring a range of setback distances from their streams, which are a large increase over and above the 10 m currently required in consents.

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Dave Grogan (Tree Crop Manager) explained that possums seem to like the redwoods and it is important to keep on top of their numbers so the trees retain apical dominance. Hand-pulling of regenerating wilding pines was also required in the planted and reverting native areas.

We then drove into the recently harvested forest and stopped at an old Pa site. We could see the evidence of Māori habitation on the hilltops, and Aratu were working



View north to Poverty Bay with poisoned pines on the coast edge

closely with local hāpu to restore the site further. Plans are also underway to improve access to the site and erect signage sharing some of the stories associated with the site. For us as guests we could see how spectacular the view was, and how useful the site would have been strategically.

Not much further on, we reached the coast. The views here were stunning – 180-degree views out into the Pacific Ocean, with a rare view of the back of Young Nick's Head Station and Poverty Bay. Here, Dave Grogan explained to us the methods Aratu were using to eradicate mature pines that were too difficult and dangerous to harvest last cycle.

They were using a 3% rate of Metsulfuron mixed with water, and putting 5 ml into five holes drilled into each tree. This was very cost-effective and seemed to have worked on all but a few trees. We learned that this method is being used fairly routinely by the forest industry now to thin pine plantations, with much reduced risk to human life compared with chainsaw thinning. Native trees were being allowed to revert and planted here also.

Other initiatives to improve the loss of woody debris and sediment included improved slash management practices, burning, slash catchers, the planting of poplar and willow at culverts and in gullies, and a very innovative use of technology and GIS to produce 'heat maps' of areas where woody debris would need to be removed to meet consent conditions.

Innovation and investment

We all came away impressed with the high level of innovation and investment Aratu was making to adapt to managing forests on the East Coast. We were also grateful for the opportunity to be invited into their office and their forests to witness the practical and technological evolution of their company first-hand.

Bryan McCavana is a committee member of the East Coast branch of the NZFFA ■